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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/147,813 08/31/99 BRAVET

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EXAMINER

IM22/0614

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ART UNIT

PAPER NUMBER

1773

DATE MAILED:

06/14/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No.	Applicant(s)	
	09/147,813	BRAVET ET AL.	
	Examiner	Art Unit	
	Christopher G. Paulraj	1773	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 April 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 40-62 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 40-62 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- | | |
|---|--|
| 15) <input type="checkbox"/> Notice of References Cited (PTO-892) | 18) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 16) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 19) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 17) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 20) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The request filed on April 5, 2001 for a Continued Prosecution Application (CPA) under 37 CFR 1.53(d) based on parent Application No. 09/147,813 is acceptable and a CPA has been established. An action on the CPA follows.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 112

3. Claims 40-62 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The claims now require the glass-free motor vehicle window to meet French standard R43. However, since the standard has not been sufficiently described in the specification and a copy has not been provided with the application, one of ordinary skill in the art would not be able to determine the exact requirements of the motor vehicle window recited in the instant claims.

Claim Rejections - 35 USC § 103

4. Claims 40-52 are considered to be product-by-process claims. The invention defined in a product-by-process claim is a product. In re Bridgeford, 357 F. 2d 679, 149 U.S.P.Q. 55 (C.C.P.A. 1996). It is the patentability of the product claimed and NOT of the recited process steps which must be established. In re Brown, 459 F. 2d 531, 173

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U.S.P.Q. 685 (C.C.P.A. 1972); In re Wertheim, 541 F. 2d 257, 191 U.S.P.Q. 90 (C.C.P.A. 1976).

5. Claims 40-45, 49, 52, and 62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Motter et al. (U.S. Patent number 4,112,171) in view of Hirmer (U.S. Patent number 5,525,401).

6. Motter et al. discloses a multilayer automotive glazing in which a transparent substrate is coated with a plastic layer with a scratch-resistant coating thereon. While the examples disclosed by Motter et al. utilize a glass material as the transparent substrate, the reference clearly states that "an all-plastic structure" may be used for this purpose (col. 1, lines 36-38). One skilled in the art would have found it obvious to substitute the glass substrate disclosed by Motter et al. for an all-plastic structure. The motivation for doing so would have been to reduce the overall weight of the automotive glazing. For example, Hirmer discloses that motor vehicle windows can be made using plastic materials, such as polycarbonate, in lieu of glass in order to reduce the weight (col. 1, lines 20-25).

7. Motter et al. discloses that the thickness of glass substrate may vary from approximately 0.040 inches (1.016 mm) up to 1/8 inch (3.175 mm) and beyond (col. 3, lines 60-65). One of ordinary skill in the art would have found it obvious to adjust this thickness to between 5 and 10 mm, as required by the instant claims. The motivation for doing so would have been to increase the overall strength of the laminated glazing. For example, Hirmer discloses that the relatively thick substrate layer used to make his

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motor vehicle windows has a thickness within an operative range of 50 to 500 mils (1.27 to 12.7 mm) (col. 3, lines 53-54).

8. It is also the examiner's position that since the laminated structure disclose by Motter et al. is intended to be used as automobile glazing structure, one skilled in the art would have found it obvious to ensure that it meets all the necessary automobile safety standards.

9. Claims 46 and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Motter et al. in view of Hirmer as applied to claim 40 above, and further in view of Bier et al. (U.S. Patent number 5,849,414).

10. Motter et al. does not specifically disclose that the scratch resistant layer comprises a hydrophobic/oleophobic agent obtained from precursor silanes having a hydrolyzable alkoxy or halo functional group at one end and a perfluorinated carbon chain at the other end. However Bier et al. discloses scratch resistant polycarbonate molded parts in which the scratch resistant layer preferably comprises fluorinated silanes. It would have been considered obvious to one of ordinary skill in the art to add hydrophobic fluorinated silanes to the hard coating layer of Motter et al. The motivation for doing so would have been to impart water-resistant properties to the laminated glazing.

11. Claims 48, 50, and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Motter et al. in view of Hirmer as applied to claim 40 above, and further in view of Oliver et al. (U.S. Patent number 4,634,637).

12. Oliver et al. discloses solar control film that is to be laminated onto a motor vehicle window structure. The reference discloses that decorative layers such as film died in a vignette pattern are known to be applied to motor vehicle windows (col. 1, lines 30-35). Oliver et al. also discloses that the solar control film can also include optically selective metal layers with a thickness between 2 and 35 nm separated by dielectric layers (col.6-col.7). It would have been considered obvious to one of ordinary skill in the art to apply a laminated structure with decorative and/or optically selective layers onto a motor vehicle window. The motivation for doing so would have been to enhance the appearance and/or the optical properties of the laminated glazings.

13. Claims 53-61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Motter et al. in view of Hirmer as applied to claim 40 above, and further in view of Tatebayashi (U.S. Patent number 4,386,042).

14. Tatebayashi discloses a process for making a synthetic resin article having a hard coating. Tatebayashi discloses a wide variety of potential applications including transparent articles such as windows for meters and clocks, and lenses or covers for automobile headlights (col. 1, lines 10-20). It would have been considered obvious to use the disclosed method to make motor vehicle windows, such as that disclosed by Motter et al., as well. Tatebayashi discloses a process in which a plastic film is coated with a hardcoating layer and then subjected to a heat treatment/curing step (col. 3, lines 25-40). The hardcoating layer can be applied by means of a spray coating or immersion coating technique (col.2, lines 23-25). The heat treatment step in the example is disclosed to occur at a temperature of about 130°C (col. 6, line 54).

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Tatebayashi discloses that the molded part can be subjected to a complete heat-forming process in accordance with the desired form of the metal mold cavity within the metal mold (col. 10, lines 13-18). Since the shaping process can occur within a heated mold, the hardcoating layer will be at least partly crosslinked at the same time the article is shaped. While Tatebayashi does not disclose that the heat treatment occur at a temperature of from 140°C to 240°C, one of ordinary skill in the art would have found it obvious to adjust the temperature to this level. The motivation for doing so would have been to impart better chemical/physical properties to the hardcoating layer. Since the process referred to by Tatebayashi involves injecting a resin material into a cavity of a mold (col. 7, lines 12-15), the mold is considered to be a frame open at its center. One of ordinary skill in the art would have also found it obvious to include other functional layers, such as those disclosed by Motter et al. and Oliver et al., in addition to the scratch resistant hardcoating layer prior to the shaping step. The motivation for doing so would have been to impart better physical/chemical properties of the laminated glazing structure.

Response to Arguments

15. Applicant's arguments filed April 5, 2001 have been fully considered but they are not persuasive for the reasons set forth below.

16. With regards to the claim rejections under 35 U.S.C. §103 as being unpatentable over Motter et al. in view of Hirmer, Applicants make the following arguments. They state that it is not clear why one skilled in the art would substitute the plastic substrate of

Hirmer with its disclosed thickness in place of the glass substrate of Motter et al. They also pose the question why would one skilled in the art not also incorporate the relatively thin sheet of Hirmer, which has a thickness which is greater than both the presently recited at least one skin layer and said scratch resistant layer. They conclude that the Examiner has selected from Hirmer only that which supports the rejection, without considering the reference as a whole.

17. This line of reasoning is not considered persuasive. As stated in the above rejections, Motter et al. specifically discloses that the substrate may be an all plastic structure (col. 1, line 38) even though the majority of the disclosure is directed towards a glass substrate. Furthermore, Hirmer specifically provides motivation to substitute a glass substrate with a plastic material in motor vehicle windows (col. 1, lines 22-25). Hirmer also provides a guideline as to an acceptable thickness range of a plastic substrate in a motor vehicle window. Thus one skilled in the art seeking to replace the glass substrate with a plastic substrate in the automotive glazing of Motter et al. would have found it obvious to look to the thickness range disclosed by Hirmer as a guideline. A change in size is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237 (CCPA 1955).

18. With regards to the question raised by the applicants, the plastic substrate disclosed by Hirmer and the glass substrate and "all plastic structure" disclosed by Motter et al. are considered to be functional equivalents. Hence, there is motivation to substitute one for the other. However, there is no absolute requirement that the all plastic substrate (relatively thick sheet) such as that disclosed by Hirmer be adhered to

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a relatively thin sheet having a thickness of 5 to 40 mils. While it is true that the Examiner has taken from Hirmer only that which supports the rejection, the true test of obviousness should be whether or not there is a motivation for using such teachings. In this case, there is such a motivation.

19. Applicants also argue that all the present product claims are now product-by-process claims and ask why one skilled in the art would combine Motter et al. and Hirmer using the presently recited process steps. As stated above, it would have been within the skill of one skilled in the art to arrive at the presently claimed article. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or an obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985). The burden has been shifted to the applicant to show unobvious differences between the claimed product and the prior art product. *In re Marosi*, 218 USPQ 289, 292 (Fed. Cir. 1983). The references either anticipated or strongly suggested the claimed subject matter. It is noted that if the applicant intends to rely on Examples in the specification or in a submitted Declaration to show non-obviousness, the applicant should clearly state how the Examples of the present invention are commensurate in scope with the claims and how the Comparative Examples are commensurate in scope with the references.

20. With respect to the use of Bier et al. and Oliver et al., applicants ask why one skilled in the art would combine these references with Motter et al. and Hirmer in the absence of Applicants disclosure. The examiner contends that there is motivation provided in the prior art for such combinations. Applicants are referred to the reasons provided in the claim rejections above.

21. With regards to the claim rejections as being unpatentable over Tatebayashi, Applicants argue that the reference is concerned with relatively small articles in comparison to motor vehicle windows. This is not persuasive. A change in size is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237 (CCPA 1955). One skilled in the art would have found it obvious to "scale up" the production process to make larger articles.

Conclusion


22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher G. Paulraj whose telephone number is (703) 308-1036. The examiner can normally be reached on Monday-Friday, 8am-5pm.

23. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine Copenheaver can be reached on (703) 308-1261. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7718 for regular communications and (703) 305-3599 for After Final communications.

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24. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-0661.

cgp
June 8, 2001



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